

# Commonwealth of Massachusetts Executive Office of Energy & Environmental Affairs

# Department of Environmental Protection

Central Regional Office • 627 Main Street, Worcester MA 01608 • 508-792-7650

DEVAL L. PATRICK Governor

TIMOTHY P. MURRAY Lieutenant Governor RICHARD K. SULLIVAN JR. Secretary

> KENNETH L. KIMMELL Commissioner

April 9, 2013

Gary S. Atkinson, Vice President Bemis Associates, Inc One Bemis Way Shirley, MA 01464 **RE:** Shirley

Transmittal No.: W137948-A

SEISS No.: 118-0795 (formerly 118-0362)

Class: SM50 FMF No.: 51520 Facilities Located at:

Bemis Seam Tape Division
 100 Ayer Road, Shirley, MA and

• The Shirley Business Unit One Bemis Way Shirley, MA

Air Quality Plan Approval Amendment

#### Dear Mr. Atkinson:

The Department of Environmental Protection ("MassDEP"), Bureau of Waste Prevention, Permitting Section, has issued five Plan Approvals described in part in the History/Facility Description below for two adjacent facilities, Bemis Seam Tape Division located at 100 Ayer Road and The Shirley Business Unit located at One Bemis Way ("Facility"), owned/operated by Bemis Associates, Inc. ("Permittee").

The first four Plan Approvals included in part: details on all regulated equipment, complete Facility-wide emission limits, and a requirement for annual source registrations per 310 CMR 7.12(2)(a)6. The most recent Plan Approval Tr. X236505 issued on April 7, 2011, permitted new extruder #23, increased some of the Facility-wide monthly limits, and required source registrations only "pursuant to the schedule noted in 310 CMR 7.12", which currently allows triennial source registrations for your Facility.

Pursuant to your letter request of April 5, 2013 and discussions with your representatives, MassDEP determined the best course of action is to amend the fourth Plan Approval (Tr. W137948). This amendment herein supersedes the first three Plan Approvals and allows triennial source registrations. MassDEP agrees that your next source registration is due in 2014 for calendar year 2013. The most recent Plan Approval (Tr. X236505), however, remains in effect, which increased the Facility-wide monthly limits for Volatile Organic Compounds ("VOC") and Hazardous Air Pollutants ("HAP"). The amended Plan Approval, Tr W137948-A follows.

The Department is of the opinion that the material submitted is in conformance with the current Massachusetts Air Pollution Control Regulations and hereby APPROVES the requested modification subject to the conditions and provisions stated below

This Plan Approval is limited to the applicable air pollution control regulations and does not constitute approval as may be required by other Department Regulations or Statutes in order for the abovementioned Facility to be installed and operated. This Plan Approval provides information on the project description, emission limitations, restrictions, specific conditions, record keeping, reporting and testing requirements.

The Department has determined that the filing of an Environmental Notification Form ("ENF") with the Secretary of Environmental Affairs, for air quality control purposes, was not required prior to this action by the Department. Notwithstanding this determination, the Massachusetts Environmental Policy Act ("MEPA") and Regulation 301 CMR 11.00, Section 11.04, provide certain "Fail-Safe Provisions" which allow the Secretary to require the filing of an ENF and/or an Environmental Impact Report at a later time.

### TABLE OF CONTENTS

Section	on	Page
I.	HISTORY / FACILITY DESCRIPTION	
II.	PROJECT DESCRIPTION	4
III.	EMISSION UNIT IDENTIFICATION	4
IV.	EMISSIONS	4
V.	EMISSION LIMITS AND RESTRICTIONS	5
VII.	MONITORING & TESTING REQUIREMENTS	5
VIII.	RECORD KEEPING REQUIREMENTS	6
IX.	REPORTING REQUIREMENTS	7
X.	GENERAL CONDITIONS	8
XI	APPEAL CONDITIONS	10

## I. HISTORY / FACILITY DESCRIPTION

- 1. The Facility includes two manufacturing plants located at One Bemis Way and 100 Ayer Road, Shirley, MA, which are adjacent properties. The One Bemis Way Facility produces adhesives and sealants and then utilizes them to coat substrates such as vinyl, paper, fabric for use in the garment, furniture and automotive industries. Processes at this location fit into SIC Code 2891 (NAICS 32552) and SIC Code 2295 (NAICS 31332), coated fabrics, not rubberized. Similarly, the Facility located at 100 Ayer Road coats and laminates utilizing the adhesives and sealants produced at the One Bemis way facility. This Facility would fit into SIC Code 2295.
- 2. On March 24, 1984, the Facility was granted Plan Approval C-P-88-061 for the installation and operation of dry mixing equipment, three calendar coaters and two extruders used to manufacture of thermoplastic adhesive films and high performance coatings for the garment, cabinet making and automotive industries.

- 3. On January 28 and 31, 2003, the Facility was inspected and violations were found. Subsequently, ACOP–CE-04-9007-27A was executed on March 29, 2004. The Order required, in part, submittal of an Air Quality Plan Approval Application.
- 4. On October 27, 2004, Plan Approval Transmittal No. ("Tr") W050514 was issued to the Facility for the installation and operation of equipment for the manufacture of thermoplastic adhesive films and high performance coatings for the garment, cabinet making and automotive industries. The Plan Approval applied to the equipment located in two adjacent buildings.
- 5. On June 23, 2006 the Facility was granted a Plan Approval (Tr. W076765) for the replacement of Extruder #9, a Berlyn extruder, with two small Davis extruders.
- 6. Manufacturing processes utilized at the Facility include in part:
  - a. Mixing -The process includes mixing a 500 700 pound batch of dry mix and plasticizers in a dough mixer. To maintain a homogeneous mixture Operating temperatures for each dough mixer range from 200 300 ° F. The five mixers are individually vented to the ambient air through the roof.
  - b. Coating The blended mixture is transferred to a heated coater for application to a substrate, which may include paper, fabric, vinyl or nylon. All three coaters vent heat directly outside.
  - c. Extruding Blended resins may be delivered to the extruders operating at high temperatures where a liquid plastic curtain is applied to a substrate that may then be used in the laminating process.
  - d. Extruders #4 and #5 are manufactured by Gloucester and directly vent to the ambient air. Both extruders are equipped with surface treatment and a Corotec catalytic converter designed to control ozone generated at the machinery. Each unit maintains greater than 99% ozone destruction efficiency.
  - e. Extruder Line #9 consists of two Davis extruders ducted to a common stack which then vents outside. This line was permitted in 2006 through Plan Approval Tr. W076765.
  - f. Extruder #21 is a Black Clawson extruder located at 100 Ayer Road.
  - g. Proposed Extruder Line 22 (Tr# W137948) consists of three extruders, all manufactured by Black Clawson. The extrusion line is equipped with surface treaters and ozone decomposers. All three directly vent to the ambient air.
  - h. Laminating Fabric substrate and a thermoplastic adhesive (on release paper) are combined for use in weatherproof apparel and camping equipment. Both webs are unwound and fed into a laminator. Laminators #2, #6, and #11 are not vented outdoors. Laminator #12 and #15 are vented outdoors.
  - i. Laboratory Product testing and development is conducted in the laboratory. There are 2 small extruders, a mixer and a laminator.

- j. Parts Cleaners There are four parts cleaners located at the facility. Three are heated and exhaust outdoors. Two Bayco thermal parts cleaners are operated at 1400°F using gas.
- 7. A list of currently installed equipment is included in Attachment A.

### II. PROJECT DESCRIPTION

The approved project consists of the installation of a new extrusion line, referred to as Extruder Line 22, having a maximum process rate of about 2275 lbs /hr. The extrusion line consists of three (3) Black Clawson extruders with a Corona surface treater and ozone decomposer. The units will be located at 100 Ayer Road.

# This amended Plan Approval supersedes the first three Plan Approvals listed below for the two Facilities:

- Plan Approval, Tr. C-P-88-061
- Plan Approval, Tr. W050514
- Plan Approval, Tr. W076765

## III. EMISSION UNIT IDENTIFICATION

Equipment that has air emissions has been assigned emission unit Identifications as noted in Table 1:

Table1								
<b>Emission Unit</b>	Description of Emission unit	Manufacturer and Model Number	Design Capacity	Pollution Control Device(s)				
EU #1	5 Coating Mixers			none				
EU #2	Coaters, extruders and laminators	Various		-Low VOC/HAP formulations -Corona tec ozone decomposers				

## IV. EMISSIONS

- 1. The manufacture of the thermoplastic adhesive films and coatings will result in emissions to the ambient air of Particulate Matter ("PM"), ozone, Volatile Organic Compounds ("VOC") and Hazardous Air Pollutants ("HAP").
- 2. Particulate Matter ("PM") emissions resulting from the mixing of dry products at the five (5) dry mixers were approved through C-P-88-061 and limited to 4.4 tons/year.

- 3. Ozone, VOC and HAP emissions result from the use and operation of VOC/HAP containing resins on the extrusion equipment. Volatile Organic Compounds ("VOC") and Hazardous Air Pollutants ("HAP") emissions are uncontrolled. Ozone emissions are negligible and in some cases are further reduced using Corona Treaters.
- 4. The Facilities are heated with suspended natural gas units and a small boiler, as are the 2 parts cleaners. This equipment will result in emissions to the ambient air of products of combustion i.e Nitrogen Oxides, sulfur oxides, volatile organic compounds, particulate matter. The fossil fuel burning equipment is exempt from requiring an Air Quality Plan Approval per 310 CMR 7.02 (15).

### V. EMISSION LIMITS AND RESTRICTIONS

The Permittee, operating both Facilities in accordance with the restrictions contained in this Plan Approval shall at all times not exceed the Facility wide limits presented in Table 3 below:

Table 3							
Emission Unit	Fuel/raw material	Pollutant	Emission Limit/Standard				
		Combined VOCs	5.0 tons per rolling 12 month total 1000 pounds per month				
	Dry mixes	Combined	5.0 tons per rolling 12 month total				
		HAPs	1000 pounds per month				
Facility wide	and plasticizers	ad Single HAP 5.0 tons per rolli	5.0 tons per rolling 12 month total 1000 pounds per month				
	prasticizers	Particulate	4.4 tons per rolling 12 month total 1000 pounds per month				
		Visible Emissions	Not to exceed 10% opacity at any time				

#### VI. SPECIAL CONDITIONS

- 1. In accordance with 310 CMR 7.18 (1), the Permittee shall, at all times, store and dispose of VOC containing materials in a manner which will minimize VOC evaporation to the atmosphere. Proper storage shall be in a container with a tight fitting cover. Proper disposal shall include incineration in an incinerator approved by the Department, transfer to another person licensed by the Department to handle VOC, or any other equivalent method approved by the Department.
- 2. All efforts must be made to evaluate and utilize formulations and mixes containing the lowest possible HAP and VOC contents.

## VII. MONITORING & TESTING REQUIREMENTS

- 1. Monitoring equipment or emission monitoring systems installed for the purpose of documenting compliance with this Plan Approval shall be installed, calibrated, maintained and operated by the Permittee in sufficient manner to ensure continuous and accurate operations at all times.
- 2. Monitoring Devices The Permittee shall monitor the operations of the entire Facility such that necessary information is available for the preparation of the Source Registration/Emission Statement Form as required by 310 CMR 7.12.
- 3. Compliance with the allowable opacity limits shall be determined in accordance with EPA method 9, as specified in 40 CFR 60, Appendix A.
- 4. Emission testing to demonstrate compliance with emission limits specified in Table 3 shall be in accordance with EPA approved reference test methods unless otherwise approved by EPA and the Department or unless otherwise specified. The VOC content of all formulations, including cleaning solvents, shall be determined in accordance with Reference Method 24 contained in 40 CFR 60, Appendix A, manufacturer's data obtained by Reference Method 24, or by other methods approved by the Department.
- 5. In accordance with 310 CMR 7.13, the Department may require testing for any pollutants if deemed necessary to ascertain the mass emission rates and relationship to equipment design and operation. The Permittee shall conduct stack testing when the Department has determined that such stack testing is necessary to ascertain compliance with the Department's regulations or design approval provisions. Such stack testing shall be:
  - a) conducted by a person knowledgeable in stack testing, and
  - b) conducted in accordance with procedures contained in a test protocol which has been approved by the Department, and
  - c) in the presence of a representative of the Department when such is deemed necessary in accordance with 310 CMR 7.13(1).

### VIII. RECORD KEEPING REQUIREMENTS

- 1. A record-keeping system shall be established and continued on site by the Permittee. All records shall be maintained up-to-date such that monthly and twelve-month rolling period information is readily available for Department examination. The Permittee shall maintain the following records on site for a period of five (5) years. Record keeping shall, at a minimum, include:
  - a) Compliance records sufficient to demonstrate that <u>monthly</u> and <u>yearly</u> emissions have not exceeded what is allowed by this Plan Approval. Such records may include daily production records, raw material usage rates, emissions test results, monitoring equipment data and reports and MSDS for raw materials currently in use.
  - b) Maintenance: A record of routine maintenance activities performed on emission unit, control equipment and monitoring equipment including, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.

- c) Malfunctions: A record of all malfunctions on emission unit, control equipment and monitoring equipment including, at a minimum: the date and time the malfunction occurred; a description of the malfunction and the corrective action taken; the date and time corrective actions were initiated; and the date and time corrective actions were completed and the emission unit returned to compliance.
- 2. PLAN APPROVAL Pursuant to the authority granted to the Department at 310 CMR 7.02(7), the Facility shall maintain a copy of this Plan Approval, and any subsequent modifications of this Plan Approval, on-site for as long as the Plan Approval 1 is valid. In accordance with 310 CMR 7.02(3)(1), the Plan Approval is valid until one of the following conditions occur: the equipment is dismantled or removed from the Facility, the Facility notifies the Department that the Plan Approval is no longer valid, the equipment is substantially reconstructed or altered and subject to 310 CMR 7.02, the Plan Approval is superceded by another Plan Approval, or the Department revokes the Plan Approval in accordance with 310 CMR 7.02(3)(k).
- 3. Records of emissions testing conducted to demonstrate compliance with the applicable requirements in Table 3 shall be in accordance with 310 CMR 7.13(1)(d).
- 4. The Permittee shall maintain sufficient records of its operations and monitoring information for the preparation of a Source Registration/Emission Statement Form as required by 310 CMR 7.12.
- 5. The Permittee shall keep copies of the Source Registration/Emission Statement Forms submitted to the Department for five (5) years as required per 310 CMR 7.12(3)(b).
- 6. The Permittee shall provide upon the Department's request, any records required by the applicable requirements identified in this Plan Approval, or the emissions of any air contaminant from the Facility records, shall be submitted to the Department within 30 days of the request by the Department, or within a longer time period if approved in writing by the Department. Said response shall be transmitted on paper, on computer disk, or electronically at the discretion of the Department.

### IX. REPORTING REQUIREMENTS

- 1. The Permittee shall notify the Department as soon as reasonably practical by telephone, email, or fax after the occurrence of any upsets or malfunctions (i.e., any piece of equipment or device breakdown that causes an excess emission) and in writing within two (2) business days of such event.
- 2. The Permittee shall summarize and submit to the Department the results of stack testing as prescribed in the Department's approved pretest protocol, stack testing that was determined by the Department to be necessary to ascertain compliance with the Department's regulations or design approval provisions in accordance with 310 CMR 7.13(1) and 310 CMR 7.13(2).
- 3. Upon the Department's request, any records required by the applicable requirements identified in this Plan Approval, or the emissions of any air contaminant from the Facility, shall be submitted to the Department within 30 days of the request by the Department, or within a longer time period if

- approved in writing by the Department. Said response shall be transmitted on paper, on computer disk, or electronically at the discretion of the Department.
- 4. All required reports must be certified by a responsible official of the Permittee as provided in 310 CMR 7.01(2)(c).
- 5. The Permittee shall report every three years to the Department, in accordance with 310 CMR 7.12, all information as required by the Source Registration/Emission Statement Form. The Permittee shall note therein any minor changes (under 310 CMR 7.02(2)(e), 7.03, 7.26, etc.), which did not require Plan Approval. The next reporting year will be 2013.
- 6. In accordance with 310 CMR 7.12(3), the Facility shall register on a form obtained from the Department such information as the Department may specify including:
  - a) A description of the Facility, including a description of process and combustion equipment, a description of Facility operating hours and operating schedule, a description of all raw materials and fuels used at the Facility.
  - b) Detailed emissions estimates for all criteria and hazardous air pollutants emitted from the Facility.
  - c) An emission statement summarizing and certifying actual annual emissions and peak ozone season day emissions of VOC and oxides of nitrogen.
  - d) A description of air pollution control equipment, including control efficiencies.
  - e) Calculations and assumptions used to support emissions such as annual fuel process rate and peak ozone season daily process rate.
  - f) Information required by 310 CMR 7.12(3) shall be submitted pursuant to 310 CMR 7.12(2).

### X. GENERAL CONDITIONS

- 1. OPERATION No person shall operate this Facility except in conformance with the requirements established in this Approval.
- 2. SUSPENSION, MODIFICATION, AMENDMENT OR REVOCATION This Plan Approval may be suspended, modified, amended or revoked by the Department if, at any time, the Department determines that the facility is violating any condition or part of this Plan Approval. This Plan Approval may be modified or amended when in the opinion of the Department a modification or amendment is necessary or appropriate to clarify the Plan Approval conditions or after consideration of a written request by the Permittee to amend the Plan Approval conditions. Any relaxation of an emission limit or a specific condition noted in this Plan Approval that would result in an increase in emission rates as established in this Plan Approval must be made in accordance with 310 CMR 7.02.

- 3. OTHER REGULATIONS This Plan Approval does not negate the responsibility of the Permitee to comply with this or any other applicable federal, state, or local regulations now or in the future. Nor does this Plan Approval imply compliance with any other applicable federal, state or local regulation now or in the future.
- 4. EXISTING APPROVALS All plan approvals issued under 310 CMR 7.02(4) or 310 CMR 7.02(5), or, citation prior to August 3, 2001, 310 CMR 7.02(2) prior to the effective date of this Plan Approval shall continue to be in effect. The Facility shall meet the emission rates and approved conditions specified in the applicable Plan Approval (s) unless specifically altered by this Plan Approval.
- 5. VISIBLE EMISSIONS The Facility shall be operated in a manner to prevent the occurrence of visible emissions that cause or contribute to a condition of air pollution as defined in Regulation 310 CMR 7.01 and 7.06.
- 6. DUST AND ODOR The Facility shall be operated in a manner to prevent the occurrence of dust or odor conditions which cause or contribute to a condition of air pollution as defined in Regulation 310 CMR 7.01 and 7.09.
- 7. NOISE The Permittee shall ensure that noise levels during routine operations, including start ups and shut downs, shall not exceed the Department Noise Policy 90-001 and in no case shall cause a condition of air pollution as defined in Regulation 310 CMR 7.01 and 7.10.
- 8. ASBESTOS Should asbestos remediation/removal be required as a result of this Plan Approval, such asbestos remediation/removal shall be done in accordance with Regulation 310 CMR 7.15.
- 9. REMOVAL OF AIR POLLUTION CONTROL EQUIPMENT Notwithstanding 310 CMR 7.02(2)(b)2., no person shall cause, suffer, allow, or permit the removal, alteration or shall otherwise render inoperative any air pollution control equipment or equipment used to monitor emissions which has been installed as a requirement of 310 CMR 7.00, other than for reasonable maintenance periods or unexpected and unavoidable failure of the equipment, provided that the Department has been notified of such failure, or in accordance with specific written approval of the Department.
- 10. RECORD KEEPING: *OPERATING AND MAINTENANCE PROCEDURES* The Facility shall maintain a copy of the approved Standard Operating Procedure (SOP) and Standard Maintenance Procedure (SMP) on-site for as long as this Plan Approval is valid. Updates or revisions to the SOP and SMP shall be submitted for Department approval prior to initiating the modification(s).
- 11. COMPLIANCE ASSURANCE FEE Pursuant to 310 CMR 4.03, an annual fee, based on the Commonwealth's fiscal year, will be charged to the Facility to cover the cost of compliance activities performed by the Department, including registrations, report reviews, inspections, source registration reviews, etc. No fee shall be charged in the fiscal year that the Plan Approval is issued. If multiple air quality Plan Approvals exist for a Facility, the Facility shall pay the single highest applicable fee. This fee does not include stack test fees.

#### XI. APPEAL CONDITIONS

This Decision is an action of the Department. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Decision. Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts, which are the grounds for the request, and the relief sought. Additionally, the request must state why the Decision is not consistent with applicable laws and regulations. The hearing request along with a valid check payable to Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

The request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority. The Department may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting for the facts believed to support the claim of undue financial hardship.

Sincerely,

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

Roseanna E. Stanley Acting Permit Chief Bureau of Waste Prevention

ecc: Kim McCoy, CERO Yi Tian, Boston/BWP

## ATTACHMENT A

			ŗ	TABLE 2 -	Equipm	ent List			
Equipment description	Stack no.	Height above roof	Velocity (ft/min)	Diameter (inches)	Cfm	Temp (° F)	Discharg e direction	Stack material	Notes
One Bemis Way Facility									
Mixer #1	M-1	11'-2"	3140	18	4382	140	vertical	Galvanized steel	1, 2
Mixer #2	M-2	11'-2"	3550	18	4954	140	vertical	Galvanized steel	1, 2
Mixer #3	M-3	11'-2"	2018	20	3564	140	vertical	Galvanized steel	1, 2
Mixer #4	M-4	11'-2"	4675	20	6524	140	vertical	Galvanized steel	1, 2
Mixer #5	M-5	12'-4"	1976	16	4723	140	vertical	Galvanized steel	1, 2
Calendar Coater #1	C-1	11'-3"	1812	16	3951	106	vertical	Galvanized steel	1, 2
Calendar Coater #3	C-3	11'-3"	5200	20	2296	106	vertical	Galvanized steel	1, 2
Calendar Coater #10	C-10	11' 3"	1000	20	2181	106	vertical	Galvanized steel	1, 2
Extruder Line 4 (w/corona treater)	E-4	11'-2	1200	14	1675	ambient	vertical	Galvanized steel	1, 2
Extruder Line 5 (w/corona treater)	E-5	11'-10	1588	18	2804	ambient	vertical	Galvanized steel	1, 2
Corona treat w/ozone dec. @ ext 4&5		5'-6" 8'-6"	2293	6x6	450	ambient	vertical	PVC	2
Extruder	E-7	Below roof	750	12x12	801	76	horizontal	Galvanized steel	2
Line 7	7a	Below roof	1750	6	343	76	horizontal	Galvanized steel	2
Extruder Line 9	E-9	8'-5"	3185	6	625	ambient	vertical	Galvanized steel	3
Laminators 2, 6 and 11	N/A								4, BT
Laminator 12	L-12	2'-8"	600	12	641	ambient	vertical	Galvanized steel	BT
Laminator 15	L-15	2'-8"	600	12	641	ambient	vertical	Galvanized steel	BT
Machine 47 w/corona treater	N/A								
Machine 47 ozone dec.		3'-6"	2293	6	450	ambient	vertical	Galvanized steel	4

Equipment description	Stack no.	Height above roof	Velocity (ft/min)	Diameter (inches)	Cfm	Temp	Discharge direction	Stack material	Notes
Evaporator	EV-1	3'	na	8	88	ambient	vertical	Steel, refractory lined	ВТ
Parts cleaner 1&2	PC-1 PC-2	5'-5" 6'-4"	na	4x8 5x8	240 1380	ambient	vertical	SS & refractory lined Steel	ВТ
Flexo press w/Corona Treater	N/A								4
Corona treater w/ ozone dec. @flex press		3'-0"	2293	6	450	ambient	vertical	Galvanized steel	4
Parts cleaner -SK	N/A								4
Welding	W-1	5'-11"	6382	11x12	5009	ambient	vertical	Galvanized Steel,	ВТ
Laboratory	l							Steel,	
Berlyn extruder	PD-1	2-14	1600	14x20	314	ambient	vertical	Galvanized steel	ВТ
Wayne extruder	PD-1	2-14	1676	14x20	328	ambient	vertical	Galvanized steel	ВТ
Mixer A&B	PD-1	2-14	1530	14x20	300- 306	ambient	vertical	Galvanized steel	ВТ
Laminator	PD-1	2-14	800	14x20	538	ambient	vertical	Galvanized steel	ВТ
100 A D	1.50								
Extruder Line 21	E-21	10'-6" below roof	1500	14	1177	ambient	vertical	Galvanized steel	2
Extruder Line 22	E-22	11	4155	16	5800	ambient	horizontal	Galvanized steel	proposed
(w/corona treater)	E-22a	11	10356	6.5	2382	ambient	horizontal	Galvanized steel	proposed
Corona treat w/ozone dec. @ ext 22		5',6"	4081	6	800	ambient	vertical	PVC	proposed
Evaporator	EV-2	3'	na	8	88	ambient	vertical	Galvanized Steel,	ВТ
Bayco Parts cleaner	PC-3	3'	NA	8	1.24.1	ambient	vertical	Steel, refractory lined	ВТ

Note 1: approved in Plan Approval C-P-88-061 dated March 24, 1984.

decomp. or dec. = decomposer

Note 2: approved in Plan Approval Tr. W050514 dated October 27, 2004.

Note 3: installed in 2006, two Davis extruders. See Plan Approval Tr. W076765 dated June 23, 2006.

Note 4: Laminators 2, 6 and 11, Flexographic press, and Safety Kleen Parts Washer vent inside.

BT = below Plan Approval thresholds or meets Plan Approval exemption

SS = Stainless Steel